## REMARKS/ARGUMENTS

Reconsideration of this application is respectfully requested.

At page 2, the Examiner indicates that claims 80-101 have been cancelled. This should be a reference to claims 84-101. Claims 80-83 are still pending and have never been cancelled.

The Examiner is thanked for including a helpful "Response to Arguments" section. Now recognizing at least some aspects of the Examiner's reading of the claims, the claims have been amended above so as to more clearly distinguish from Harvey (e.g., as to memory segmentation, etc.).

With respect to the formality-based claim objections, the dependency of claim 77 has been corrected. However, the status identifiers for claims 80-83 are believed to be correct – since these claims have not been cancelled at any time.

The rejection of claims 1-8, 10-16, 32-37, 41, 78, 79, 105, 106, 124 and 125 under 35 USC 102 as allegedly anticipated by Harvey (WO '147) is again respectfully traversed.

As will be observed, Applicant's claims have now been further amended. For example, the intended meaning of memory "segment" has been clarified. In addition, the claims now refer to providing services to users of the directory system and segregation of attributes within memory is based on association of services with particular attributes. In this manner, the segregation facilitates processing of such attributes by service components.

Prior to the above amendment, Applicant's claims were already clearly distinct from any teaching or suggestion of Harvey. As noted below, it is respectfully submitted

that the Examiner has apparently misunderstood some features of Harvey and/or Applicant's invention.

The Examiner incorrectly alleges that Applicant's response filed on May 21, 2007, argued that:

> [Harvey's] attribute table does not store information on what attributes to apply to any directory object, and then refutes that argument by arguing that Harvey does teach what attributes to apply to any directory object on page 14.

However, it appears that the Examiner has misunderstood the argument, and has misread the corresponding statement in the response, which actually reads: "the attribute table does not store information on what attributes apply to any directory object." That is, the Examiner has changed the words "what attributes apply" to "what attributes *to* apply" and seems also to have understood the use of the word "any" to mean any possible directory object, rather than any *particular* object, which was intended. The Examiner's insertion of the word "to" is significant, and substantially changes the meaning of the sentence.

In asserting that Harvey "clearly shows correlating the relationships between tables," the Examiner is missing the point, which is not that information associating objects with attributes and the values of those attributes is not stored somewhere in Harvey's system, but rather that this information is not stored *in the attribute table*.

It is true that the attribute table in Harvey provides a complete list of possible attribute *types* that are *available* to be associated with any directory object, whether existing or not. However, the table does not store the *association* of those attributes with each directory object, and does not store the *values* of those attributes. That is, the

attribute table in Harvey does not change when objects are created, changed or deleted and indeed would be the same even if the directory contained no objects whosoever.

Notwithstanding this difference, relevant portions of claim 1 then (i.e., even prior to the above further amendment) read: "attribute data representing attributes of said directory objects" and "memory segments dedicated to storage of attribute data for a plurality of directory objects." The recitation of attributes of directory objects has now been further clarified.

Insofar as X.500 is understood, a directory object is essentially a collection of attribute-value pairs having a particular location within the overall hierarchy of a Directory Information Tree (DIT) (neglecting management metadata for that object). Consequently, it is believed that, in the context of the specification, the words "attribute data representing attributes of said directory objects" would already have been under-stood by those skilled in X.500 to require that the attribute data represents, for each one of those directory objects, the attribute-value pairs of that object.

In the context of Harvey, it might be argued that one could possibly say 'the attributes of each object on Harvey are Name, Surname, Organization, ...'. However, those are only attribute *types*; the attributes of one of the objects described in Harvey are Name=Chris, Surname=MASTERS, ... In any event, the claims have now been amended to remove any doubt, by specifying that the attribute data represents attribute types and respective values for each object.

The Examiner also alleges that Harvey discloses "segmenting physical memory into segments dedicated to storage of specific portions of directory data." Specifically, the Examiner objected that the claims do not specify "how segmentation is physically performed with respect to memory and portions of directory data."

The Examiner states that he has considered each cell within each database table in Harvey to be a memory segment. However, claim 1 requires:

(a)    one or more attribute segments, each of said attribute segments being dedicated to storage of attribute data for a plurality of directory objects,

(b)    one or more DIT segments, each of said DIT segments being dedicated to storage of DIT data for a plurality of directory objects, and

(c)    one or more object segments, each of said object segments being dedicated to storage of management data for a plurality of directory objects.

Referring to page 14 of Harvey, based on the Examiner's interpretation of each table cell as being a memory segment, this would require each cell of the DIT table to store DIT data for a plurality of directory objects, which is not the case.

Similarly, claim 1 requires each object segment (being a cell of Harvey's object table) to be dedicated to storage of management data *for a plurality of* directory objects, which is clearly not the case. Each row of the object table identifies a single attribute-value pair for a single object/entity identified by the corresponding EID. There is no "management data" in any of the tables.

Given such fundamental deficiencies of Harvey as already noted, it is not believed necessary at this time to discuss additional deficiencies of this reference with respect to other features of the rejected claims. Suffice it to note that, as a matter of law, it is impossible for a reference to anticipate any claim unless it teaches each and every feature of that claim.

The rejection of claims 18, 20-25, 27-30 and 39 under 35 USC 103 as allegedly being made "obvious" based on Harvey in view of Murthy '039 is also respectfully traversed.

- 31 -

Fundamental deficiencies of Harvey have already been noted above with respect to a parent claim. Murthy does not supply those deficiencies. Accordingly, it is not believed necessary at this time to discuss the additional deficiencies of this allegedly "obvious" combination of references with respect to the additional limitations brought out by these rejected claims.

The rejection of claims 9 and 38 under 35 USC 103 as allegedly being made "obvious" based on Harvey in view of Sudia '616 is also respectfully traversed.

Once again, fundamental deficiencies have already been noted above with respect to at least one parent claim. Sudia does not supply those deficiencies. Accordingly, it is not believed necessary at this time to discuss the additional deficiencies of this allegedly "obvious" combination of references with respect to the additional features recited in these rejected claims.

The rejection of claim 19 under 35 USC 103 as allegedly being "obvious" based on Harvey in view of Cook '726 is similarly respectfully traversed.

As before, since fundamental deficiencies of Harvey have already been noted above with respect to the parent claim, it is not believed necessary at this time to detail additional deficiencies of this allegedly "obvious" combination of references with respect to the additional limitations of this rejected claims.

The rejection of claims 26 and 42 under 35 USC 103 as allegedly being made "obvious" based on Harvey in view of Murthy in further view of Cook is also respectfully traversed – for the same reasons as already noted above.

The rejection of claims 43-45 under 35 USC 103 as allegedly being made "obvious" based on Harvey in view of Hsu '664 is also respectfully traversed.

- 32 -

Once again, fundamental deficiencies of Harvey have already been noted above with respect to a parent claim. Hsu does not provide those deficiencies. Accordingly, it is not believed necessary at this time to detail additional deficiencies of this allegedly "obvious" combination of references with respect to the additional features required by these rejected claims.

The rejection of claims 36-48, 50-54, 56, 57 and 59-61 under 35 USC 103 based on Harvey in view of Kagan '681 is also respectfully traversed.

Once again, fundamental deficiencies of Harvey have already been noted above with respect to a parent claim. Kagan does not supply those deficiencies. Accordingly, it is not believed necessary at this time to discuss the additional deficiencies of this allegedly "obvious" combination of references with respect to the additional features required by these rejected claims.

Similarly, the rejection of claims 58 and 77 under 35 USC 103 based on Harvey/Kagan in further view of Langseth is also respectfully traversed – for reasons already noted above.

Again similarly, the rejection of claims 62-66 and 70-73 under 35 USC 103 based on Harvey/Kagan/Murthy is also respectfully traversed – for reasons already noted above.

The rejection of claim 49 under 35 USC 103 as allegedly being made "obvious" based on Harvey/Kagan in further view of Irwin is similarly respectfully traversed.

Fundamental deficiencies of Harvey have already been noted above with respect to a parent claim. Kagan and/or Irwin do not supply those deficiencies. Accordingly, it is not believed necessary at this time to detail additional deficiencies of this allegedly "obvious" combination of references with respect to the additional features required by the rejected claims.

The rejection of claim 55 under 35 USC 103 as allegedly being made "obvious" based on Harvey in view of Byrne '382 is similarly respectfully traversed.

Once again, Byrne does not supply the already noted fundamental deficiencies of Harvey with respect to a parent claim. Accordingly, it is not believed necessary at this time to detail additional deficiencies of this allegedly "obvious" combination of references.

The rejection of claims 67 and 69 under 35 USC 103 as allegedly being made "obvious" based on Harvey/Kagan/Murthy (misspelled by the Examiner as "Murphy") in further view of Cotte '048 is also respectfully traversed.

None of the further references supply the fundamental deficiencies of Harvey already noted above with respect to a parent claim.

The rejection of claim 68 under 35 USC 103 as allegedly being made "obvious" based on Harvey/Kagan/Cotte is also respectfully traversed – for reasons already noted above.

The rejection of claim 102 under 35 USC 103 as allegedly being made "obvious" based on Harvey in view of Roy '893 is also respectfully traversed.

Once again, Roy does not supply fundamental deficiencies of Harvey already noted above with respect to a parent claim.

Similarly, the rejection of claims 103 and 104 under 35 USC 103 as allegedly being made "obvious" based on Harvey in view of Dietterich '393 is also respectfully traversed.

Dietterich does not supply fundamental deficiencies of Harvey already noted with respect to a parent claim. Accordingly, it is not believed necessary to further discuss this allegedly "obvious" combination of references at this time.

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The rejection of claim 107 under 35 USC 103 as allegedly being made "obvious" based on Harvey/Dietterich in further view of Roy '8903 is also respectfully traversed – for reasons such as already noted above.

It is respectfully noted that the Examiner has found it necessary to carefully cherry-pick selected bits and pieces from a great number of secondary, tertiary and in some cases quaternary references in order to even arguably find some of the additional limitations found in numerous of Applicant's dependent claims. How could this possibly have all been "obvious" to the hypothetical person having only ordinary skill in the art at the relevant time? With respect to almost any invention, one can look backwards in time and find antecedents for most, if not all, of the individual features/components of that claimed invention. However, such hindsight reconstruction based on using Applicant's claims as a template for filtering through numerous prior art references and combining them in an almost willy-nilly fashion is clearly not appropriate under 35 USC 103.

The decision in *KSR* did not ignore the dangers of hindsight: "A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant on <u>ex post</u> reasoning." *KSR Int'l. Co. v. Teleflex, Inc.*, 550 U.S. ___, 82 USPQ2d 1385, 1397 (2007). Although the Court rejected the "[r]igid preventative rules," <u>id.</u>, that had been erected by the Federal Circuit, it did <u>not</u> enable the use of hindsight in determining obviousness.

The Examiner's attention is also drawn to new dependent claims 126-138. These claims are believed to add yet further patentably distinct features to the parent claims and are also believed to be in allowable condition.

Accordingly, this entire application (including the patentably distinct claims 108-123 now withdrawn from consideration in view of a restriction requirement) is now
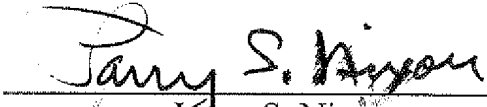
believed to be in allowable condition, and a formal notice to that effect is respectfully solicited.

Respectfully submitted,

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